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10/020,343	12/10/2001	Thomas Bergstraesser	418268741US	8983

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EXAMINER	
WOZNIAK, JAMES S	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/020,343	BERGSTRAESSER ET AL.	
	Examiner	Art Unit	
	JAMES S. WOZNIAK	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *66-85* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *66-85* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In response to the office action from 1/22/2008, the applicant has submitted an amendment, filed 5/22/2008, amending independent claims 66, 74, and 82, while arguing to traverse the art rejection based on the limitation regarding a database storing actions associated with a set of computer-executable instructions *(Amendment, Pages 10-11)*. Applicant's arguments have been fully considered, however the previous grounds of rejection are maintained due to the reasons listed below in the response to arguments.

Response to Arguments

2. Applicant's arguments have been fully considered but they are not persuasive for the following reasons:

With respect to **Claims 66, 74, and 82**, the applicants first argue that the prior art of record fails to teach a dictionary having linguistic components and associated document actions. In support of this position, the applicant alleges that Yamaguchi et al (U.S. Patent: 5,734,889) only teaches a repository of data without actions, Shanahan et al (U.S. Patent: 6,732,090) only teaches a text database, and Kimura *(U.S. Patent: 6,282,508)* only teaches vocabulary data *(Amendment, Page 11)*.

In response, the examiner notes that Yamaguchi's repository does anticipate the above noted claim limitation. More specifically, Yamaguchi recites a database *(Fig. 1, Element 5)* that relates natural language words/phrases to tasks or actions that are to be carried out in a document *(Col. 5, Line 41- Col. 6, Line 27)*. For example, Yamaguchi describes an executable task or action associated with an input sentence "Want to know name" *(Col. 5, Line 41- Col. 6, Line 27)*. In this example, the action would be the associated steps of a retrieve action associated with the specific string the user is searching and pasting the specific string in the active document *(Col. 4, Lines 54-60)*. Retrieving specific requested information and pasting that information into a document is an executable task or action. Thus, since all of the possible user inputs are associated with corresponding retrieval/pasting actions, the applicants' arguments have been fully considered, but are not convincing.

With respect to the aforementioned claims, the applicants also argue that the prior art of record also fails to teach that their dictionary can store multiple actions, each one having a specific set of computer-executable instructions *(Amendment, Page 11)*. In response, the examiner notes that Yamaguchi's tasks would also be associated with actions having individual computer instructions. For example, input text can be associated with a number of different items that can be searched/pasted into a spread sheet *(see personal name, company name, profit, etc., Col. 5, Lines 48-63; and Col. 7, Lines 28-43)*. Thus in each case, although the corresponding computer instructions would each involve some type of retrieve/paste functions, the actions would be different because the type of data that is retried and pasted would be different. In other words, "Paste profit" and "Paste personal name" would be two different actions even though they both involve a paste function. Thus, since the applicants' claimed

actions do not define over the teachings of Yamaguchi for at least the above reasons, these arguments have been fully considered, but are not convincing.

The art rejection of the dependent claims is traversed for reasons similar to the independent claims *(Amendment, Page 11)*. In regards to such arguments, see the response directed towards the independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 66-71, 73-79, and 81** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al *(U.S. Patent: 5,734,889)* in view of Shanahan et al *(U.S. Patent: 6,732,090)* and further in view of Kimura *(U.S. Patent: 6,282,508)*.

With respect to **Claim 66**, Yamaguchi discloses:

A dictionary that includes a correspondence between linguistic components and contexts with their associated actions *(database, Fig. 1, Element 5, that relates natural language input information and particular document action data through correlation data such as context and domain, Col. 5, Line 41- Col. 6, Line 27)*, each action being implemented using a set of computer-executable instructions that are specific to each action *(retrieval/pasting instructions*

associated with various information types- personal name, company name, profit, etc., Col. 5, Lines 48-63; and Col. 7, Lines 28-43);

Receiving from a user text entry via an input device into the document of a document type, the document being opened by the application executing on the client computing device *(document of a specific type, Figs. 1-5, functioning in software on a computer system, into which a user can input a natural language (NL) text entry, Col. 4, Lines 10-39)*;

Parsing the text entry to identify a linguistic component *(performing syntax, context, and domain analysis to segment a NL text input, Col. 5, Lines 19-63)*;

Identifying from the dictionary a first action associated with the identified linguistic component and contexts, the first action being specific to the linguistic component and associated with a first set of instructions *(searching the database to retrieve specific document actions based on the linguistic processing results, Col. 5, Line 41- Col. 6, Line 50)*, wherein the dictionary includes indications of different actions to be performed on a document for a linguistic component for different contexts *(actions based on context information, Col. 5, Line 41- Col. 6, Line 50; and example of a "company" component specific to different address/telephone number components, Fig. 6)*; and

Identifying from the dictionary received from the server computing device a second action associated with the identified linguistic component, the second action being associated with a second set of instructions for performing the second action *(multiple actions can be associated with a single user input, Col. 4, Lines 40-53)*; and

Performing the identified action on the document to exhibit a behavior in the document by executing the set of instructions associated with the selected action. *(action is performed in the document, Col. 6, Lines 1-50).*

Although Yamaguchi discloses that document actions can be retrieved based on NL components and context and further notes that database entries can be correlated to multiple types of data *(Col. 6, Lines 20-27)*, Yamaguchi does not disclose that context information includes document type and user role or provide a means for selecting from multiple retrieval results. Shanahan, however, discloses a method/system for auto-completion of user text entries within a document using context information including user identity *(such as access and privileges)* and document classification *(Col. 56, Lines 12-36; and Col. 58, Lines 25-59).* Shanahan also teaches the ability to display multiple retrieval results for user selection *(Fig. 46, Elements 4612 and 4614; and Col. 59, Lines 23-49).*

Yamaguchi and Shanahan are analogous art because they are from a similar field of endeavor in text document completion using context information. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Yamaguchi with the user identity and context information taught by Shanahan in order to better anticipate the information needs of a user *(Shanahan, Col. 56, Lines 22-36)* and reduce an information search space *(Shanahan, Col. 59, Lines 1-10).*

Although Yamaguchi discloses the database relating NL components and context *(Fig. 1, Element 1)*, Yamaguchi in view of Shanahan do not teach that this database is accessible to multiple client devices via a server download. Kimura, however, discloses the concept of storing

a centrally maintained dictionary at a server, where it can be downloaded to client computing dictionary-using devices *(Col. 1, Lines 53-56; and Col. 4, Lines 35-62)*.

Yamaguchi, Shanahan, and Kimura are analogous art because they are from a similar field of endeavor in text processing utilizing database information. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Yamaguchi in view of Shanahan with the dictionary management concepts taught by Kimura in order to provide a means for easily keeps a device dictionary database updated *(Kimura, Col. 1, Lines 49-52)*.

With respect to **Claim 67**, Yamaguchi discloses the database used for document completion, Shanahan discloses the document classification used to determine a document completion action, and Kimura discloses a database centrally managed at a server, as all applied to Claim 66.

With respect to **Claim 68**, Shanahan further discloses:

When a parsed linguistic component does not uniquely correspond to a linguistic component with a correspondence to an action, displaying an indication of multiple linguistic components, receiving from the user a selection of one of the multiple linguistic components, identifying from the dictionary an action associated with the selected linguistic component, and performing the identified action on the document *(providing similar completion results to a user for selection and subsequent entry into a document, Col. 59, Lines 11-34)*.

With respect to **Claim 69**, Shanahan discloses the document classification utilized for document completion, as applied to Claim 1, while Yamaguchi discloses multiple document types as different spreadsheet templates *(Figs. 2-4; and Col. 4, Lines 10-25)*.

With respect to **Claim 70**, Yamaguchi further discloses:

The context further includes an indication of the application that has the document open *(NL sentences are defined in a context pertaining to particular table applications (i.e., address, business results, etc.), Col. 4, Lines 10-53).*

With respect to **Claim 71**, Shanahan further discloses:

Context further includes an indication of the user *(user name, Col. 56, Lines 12-36).*

With respect to **Claim 73**, Kimura further discloses:

The server computing device provides the dictionary to multiple client computing devices *(the server updates a dictionaries in a plurality of client language processing systems, abstract; and Col. 1, Lines 53-56).*

Claim 74 contains subject matter similar to Claim 66, and thus, is rejected under similar rationale. Also, Yamaguchi further discloses: a sentence input means (Col. 4, Lines 26-39), a data retrieving device *(Col. 3, Line 65- Col. 4, Line 2)* that displays documents for a user *(Figs. 2-5)* which would inherently require some type of display means, and method implementation as software running on a computing device which would inherently require some type of memory for storing the program and some type of processor so that the software can be implemented *(Col. 4, Lines 10-25).*

Claims 75-79 contain subject matter respectively similar to claims 67-71, and thus, are rejected under similar rationale.

Claim 81 contains subject matter similar to Claim 81, and thus, is rejected under similar rationale.

5. **Claims 72 and 80** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al in view of Shanahan et al in view of Kimura and further in view of de Hita et al *(U.S. Patent: 6,081,774)*.

With respect to **Claim 72**, Yamaguchi in view of Shanahan and further in view of Kimura teaches the method/system for performing document actions as applied to Claim 66. Yamaguchi in view of Shanahan and further in view of Kimura does not specifically suggest specifying synonyms for a linguistic element, however de Hita discloses a dictionary creation means for associating semantic *(synonym)* and syntactic data with a linguistic element *(token) (Col. 3, Lines 1-20; and Col. 11, Lines 8-56)*.

Yamaguchi, Shanahan, Kimura, and de Hita are analogous art because they are from a similar field of endeavor in text processing utilizing database information. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Yamaguchi in view of Shanahan and further in view of Kimura with the dictionary creation means taught by de Hita in order to ensure proper representation of a text's content *(de Hita, Col. 2, Lines 9-20)*.

Claim 80 contains subject matter similar to Claim 72, and thus, is rejected under similar rationale.

6. **Claim 82** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al *(U.S. Patent: 5,734,889)* in view of Kimura *(U.S. Patent: 6,282,508)*.

With respect to **Claim 82**, Yamaguchi discloses the document action client device, while Kimura discloses the central server dictionary maintenance/distribution means, as both applied to

claim 1. Kimura also discloses an interface for maintaining the dictionary and receiving dictionary requests *(upload/download server interface, See Figs. 4A and 4B)*.

Yamaguchi and Kimura are analogous art because they are from a similar field of endeavor in text processing utilizing database information. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Yamaguchi with the dictionary management concepts taught by Kimura in order to provide a means for easily keeps a device dictionary database updated *(Kimura, Col. 1, Lines 49-52)*.

7. **Claims 83-84** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al *(U.S. Patent: 5,734,889)* in view of Kimura *(U.S. Patent: 6,282,508)* and further in view of Shanahan et al *(U.S. Patent: 6,732,090)*.

With respect to **Claim 83**, Yamaguchi in view of Kimura discloses the document action system having a dictionary maintained at a server, as applied to Claim 82. Yamaguchi in view of Kimura does not specifically suggest providing multiple linguistic alternatives to a user for selection as recited in claim 83, however, Shanahan discloses such a providing means as applied to Claim 68.

Yamaguchi, Kimura, and Shanahan are analogous art because they are from a similar field of endeavor in text document completion using context information. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Yamaguchi in view of Kimura with the user identity and context information taught by Shanahan in order to better anticipate the information needs of a user *(Shanahan, Col. 56, Lines 22-36)* by providing additional matches *(Shanahan, Col. 59, Lines 35-45)*.

Claim 84 contains subject matter similar to claim 66, and thus, is rejected under similar rationale.

8. **Claim 85** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al in view of Kimura in view of Shanahan et al and further in view of de Hita et al *(U.S. Patent: 6,081,774)*.

With respect to **Claim 85**, Yamaguchi in view of Kimura and further in view of Shanahan teaches the method/system for performing document actions as applied to Claim 84. Yamaguchi in view of Kimura and further in view of Shanahan does not specifically suggest specifying synonyms for a linguistic element, however de Hita discloses a dictionary creation means for associating semantic *(synonym)* and syntactic data with a linguistic element *(token) (Col. 3, Lines 1-20; and Col. 11, Lines 8-56)*.

Yamaguchi, Shanahan, Kimura, and de Hita are analogous art because they are from a similar field of endeavor in text processing utilizing database information. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Yamaguchi in view of Kimura and further in view of Shanahan with the dictionary creation means taught by de Hita in order to ensure proper representation of a text's content *(de Hita, Col. 2, Lines 9-20)*.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached at (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/James S. Wozniak/
Patent Examiner, Art Unit 2626